



Safety Data Sheet

SECTION 1: IDENTIFICATION

Company Identification:

DRS Laboratories, Inc.
PO Box 20247
Lehigh Valley, PA 18002
Non-Emergency: 888-377-1533
E-mail address: info@drslaboratories.com

For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call PERS (24 Hours)
Within USA and Canada: **1-800-633-8253**
Outside USA and Canada: **+1 802-629-0667**
PERS Contract No: 11728

Product Identifier: **Technical Sodium Chlorite**
Trade Name: MCS CD Generation Chemical – CD Generation Part "A" (20 Gram Size)
Recommended Use: Mini Chlorine Dioxide System (MCS) Use ONLY
Restrictions on Use: Restricted for use on the Mini Chlorine Dioxide System (MCS) ONLY
Product Use: Technical Sodium Chlorite is a registered antimicrobial pesticide (EPA Registration Number: 90094-1). For use to generate Chlorine Dioxide Gas and for water treatment
Uses Advised Against: This is a pesticide product; do not use it in a pesticide application that is not included on its label

SECTION 2: HAZARD(S) IDENTIFICATION

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

EMERGENCY OVERVIEW:

Color: White
Physical State: Solid
Appearance: Flakes
Odor: Chlorine
Signal Word: DANGER

Major Health Hazards: Corrosive. Fatal if inhaled. Toxic if swallowed. Causes skin irritation. Causes serious eye damage. Ingestion may cause damage to: blood system, and kidney system. Inhalation may cause damage to the respiratory system. May cause damage to the blood and kidneys through prolonged or repeated exposures.

Physical Hazards: Strong Oxidizer. Contact with other materials may cause fire or explosion.

Aquatic Toxicity: Harmful to aquatic life.

PRECAUTIONARY STATEMENT: DANGER - Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed. Irritating to nose and throat. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles or safety glasses). Wear protective clothing and neoprene gloves when handling this product. Avoid breathing dust or fumes. Wash thoroughly with soap and water after handling and before eating, drinking, and chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse to avoid fire.

Environmental Hazards: This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Physical and Chemical Hazards: Danger: strong oxidizing agent. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide is a poisonous, explosive gas), and possible fire and explosion. Do not contaminate with moisture, garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter. Do not use moist or damp utensils.

ADDITIONAL HAZARD INFORMATION: This material is corrosive and an oxidizer. This material's pH and oxidative action contribute to its health and physical hazards.

GHS HAZARD CLASSIFICATION:

PHYSICAL HAZARD: Oxidizing Solid – Category 1

CONTACT HAZARD - SKIN: Category 2 - Causes skin irritation.

CONTACT HAZARD - EYE: Category 1 - Causes serious eye damage

ACUTE TOXICITY - INHALATION: Category 2 - Fatal if inhaled

ACUTE TOXICITY - ORAL: Category 3 - Toxic if swallowed.

TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Category 2 - May cause damage to Respiratory System, Blood, Kidneys

TARGET ORGAN TOXICITY (REPEATED EXPOSURE): Category 2 - May cause damage to Blood, Kidney through prolonged or repeated exposure.

CARCINOGENICITY: Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC, or OSHA.

HAZARDOUS TO AQUATIC ENVIRONMENT – ACUTE HAZARD: Category 3 - Harmful to aquatic life

UNKNOWN ACUTE TOXICITY: Not applicable. This product was tested as a whole. This information only pertains to untested mixtures. 100% of this product consists of ingredient(s) of known acute toxicity.

GHS SYMBOL: Oxidizer, Skull and Crossbones, Corrosion, Health hazard



GHS HAZARD STATEMENTS:

Physical Hazard Statement(s)

May cause fire or explosion; strong oxidizer

Health Hazard Statement(s)

Fatal if inhaled -- Toxic if swallowed -- Causes serious eye damage -- Causes skin irritation -- May cause damage to organs: (Respiratory, Kidney, and Blood systems) -- May cause damage to Renal system (Kidneys), and Blood system through prolonged or repeated exposure.

Precautionary Statement(s) - Prevention

Keep away from heat/sparks/open flames/hot surfaces - No smoking - Keep/Store away from clothing and other combustible materials - Take any precaution to avoid mixing with combustibles, acids, chlorine or organic materials - Do not breathe dusts or mists - Wash hands thoroughly after handling - Do not eat, drink or smoke when using this product - Use only outdoors or in a well-ventilated area - Avoid release to the environment - Wear protective gloves/protective clothing/eye protection/face protection - Wear fire/flame resistant/retardant clothing - In case of inadequate ventilation, wear respiratory protection

Precautionary Statement(s) – Response

IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Specific treatment (see Section 4 of the safety data sheet and/or the First Aid information on the product label)

IF INHALED: Immediately call a POISON CENTER or doctor/physician. Remove person to fresh air and keep comfortable for breathing. Specific treatment is urgent (see Section 4 of SDS or first aid information on this label).

IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Precautionary Statement(s) - Storage

Do not contaminate water, food, or feed by storage or disposal. Keep product in original sealed pouches when not in use. Store in a cool, dry, well-ventilated area away from heat or open flame. Avoid exposure to high temperatures during storage. Store remote from other chemicals, combustible materials and in area inaccessible to children.

Precautionary Statement(s) - Disposal

Pesticide wastes are acutely hazardous. Do not reuse or refill pouch. Place empty pouch into separate plastic bag, tie off and then discard in trash. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Hazards Not Otherwise Classified (HNOC)

None identified

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS #	WEIGHT IN PERCENT (%)
Sodium chlorite	7758-19-2	77-83
Sodium chloride	7647-14-5	11-19
Water	7732-18-5	1-5

NOTE: The percentage by weight values reported for this product represent approximate formulation values.

SECTION 4: FIRST-AID MEASURES

INHALATION: If inhalation occurs and adverse effects result, remove to uncontaminated area/fresh air. Evaluate ABC's (is Airway constricted, is Breathing occurring, and is blood Circulating) and treat symptomatically. If cough or difficulty in breathing develops, call a doctor immediately. Specific Treatment: There is no specific antidote. Treat symptomatically. Pulse oximetry may not be reliable, see notes to physician.

INGESTION: If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious or convulsive person. GET MEDICAL ATTENTION IMMEDIATELY. For specific treatment, see Notes to Physician.

SKIN/CLOTHING CONTACT: Brush off excess chemical. Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with large amounts of water. Call a poison control center or doctor for treatment advice. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

EYE CONTACT: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Most Important Symptoms/Effects (Acute and Delayed):

Acute Symptoms/Effects: Listed below.

Inhalation (Breathing): Respiratory System Effects: Exposure to airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, bronchio-constriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

Skin: Skin Irritation. Skin exposure may cause irritation, redness, itching, swelling, burning sensation.

Eye: Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.

Ingestion (Swallowing): Ingesting this material may cause irritation, nausea, and vomiting. Oxidation may cause significant metabolic issues such as: methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

Delayed Symptoms/Effects:

- Repeated and prolonged skin contact may cause a dermatitis

Interaction with Other Chemicals Which Enhance Toxicity: Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes. Chlorine dioxide vapors are emitted when this product contacts acids, chlorine, or bleach.

Medical Conditions Aggravated by Exposure: May aggravate preexisting conditions such as: Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin. Respiratory conditions including asthma and other breathing disorders. Ingestion may induce G6PD deficiency, hemolysis and renal failure. G6PD deficiency, hemoglobinopathies, renal compromise, and conditions causing hypoxia may be aggravated by ingestion of this material.

Protection of First-Aiders: Protect yourself by avoiding contact with this material. Avoid contact with skin and eyes. Do not ingest. Do not breathe dust. Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

Notes to Physician: Chlorine dioxide vapors are emitted when this product contacts acids or chlorine. If these vapors are inhaled, monitor patient closely for delayed development of pulmonary edema which may occur up to 48-72 hours post-inhalation. Following

ingestion, neutralization and use of activated charcoal is not indicated. Probable mucosal damage may contraindicate the use of gastric lavage. Treat as a corrosive due to the pH of this material. This is also a strong oxidizer which will react with tissue in the presence of water. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no specific antidote. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation. Ingestion of even small amounts of solution should be closely monitored for methemoglobinemia, hemolysis, and glutathione depletion, followed by renal failure. This chemical acts similarly to its related compound chlorate, and produces a drug induced G6PD deficiency. Methylene blue has not been reported as effective. Consult the PubMed Case Report PMID 22996135 for the case description and treatment utilized.

SECTION 5: FIRE-FIGHTING MEASURES

- Fire Hazards:** Strong oxidizer. According to NFPA Code 430, this material is classified as a Class 3 Oxidizer. Class 3 Oxidizers will severely increase the burning rate of combustible materials with which they come in contact. In addition, they will cause sustained and vigorous decomposition if contaminated with a combustible material or if exposed to sufficient heat. This product may represent an explosion hazard if it contacts acids, chlorine or organic materials (Refer to Section 10).
- Extinguishing Media:** Use extinguishing agents appropriate for surrounding fire.
- Fire Fighting:** Wear NIOSH approved positive-pressure self-contained breathing apparatus. Consider evacuation of personnel located downwind. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Flood with fine water spray. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.
- Hazardous Combustion Products:** Chlorine, Oxides of sodium.
- Sensitivity to Mechanical Impact:** Avoid mechanical shock or impact, if contaminated with combustible material
- Sensitivity to Static Discharge:** Not Sensitive.
- Flash Point:** Not Applicable.
- Lower Flammability Level (air):** Not flammable
- Upper Flammability Level (air):** Not flammable
- Auto-ignition Temperature:** Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Isolate hazard area and deny entry. Keep unnecessary and unprotected personnel from entering the area. Avoid contact with skin and eyes. Do not breathe dust, fume, gas, mist, vapors, or spray. Do not ingest. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SDS.
- Environmental Precautions:** This material is harmful to aquatic life. Keep out of water supplies and sewers. Should not be released into the environment. Releases should be reported, if required, to appropriate agencies.
- Methods and Materials for Containment and Cleaning Up:** DO NOT use floor sweeping compounds to clean up spills. Dampen and scoop spilled material into clean, dedicated equipment. Do not dry sweep. Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up. Keep collected material damp and put into drums. Dispose of in accordance with all applicable regulations.

SECTION 7: HANDLING AND STORAGE

- Precautions for Safe Handling:** Do not taste or swallow. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or dust when opening container. Avoid creation of dust or fumes. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. Wash thoroughly after handling. Use clean, dry utensils. Do not add the product to any dispensing device containing residuals of other products. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion. Do not contaminate with acids, reducing agents, combustible materials, oxidizing materials, hypochlorite, organic solvents and compounds, garbage, dirt, organic matter, household products, chemicals, soap products, paint products, vinegar, beverages, oils, pine oil, dirty rags, sulfur-containing rubber, or any other foreign matter. Do not drop, roll or skid drums.

Safe Storage Conditions: Store and handle in accordance with all current regulations and standards. Consult local fire codes. Store in tightly closed, labeled containers away from combustible materials. Store in a cool, dry area. Store in a well-ventilated area. Do not allow water to get in container. Store below 125 °F (52 °C). Avoid exposure to sunlight or ultraviolet light. Keep separated from incompatible substances (see below or Section 10 of the SDS).

Incompatibilities/ Materials to Avoid: Acids, reducing agents, combustible material, oxidizing agents, hypochlorite, organic solvents and compounds, garbage, dirt, organic materials, household products, chemicals, soap products, paint products, vinegar, beverages, oils, pine oil, dirty rags, sulfur-containing rubber, or any other foreign matter.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Regulatory Exposure Limit(s): None. This product does not contain any components that have regulatory occupational exposure limits (OEL's) established.

OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit

NON-REGULATORY EXPOSURE LIMIT(S): Listed below for the product components that have advisory (non-regulatory) occupational exposure limits (OEL's) established.

- **The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).**

- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

OXY REL 8 hr TWA	1 mg/m3 recommended Time Weighted Average - 8 hour (internal Occupational Exposure Limit) This value is based on potential systemic effects from inhalation of sodium chlorite dust
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ENGINEERING CONTROLS: Use only in well-ventilated areas. Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Eye Protection: Wear chemical safety goggles. Where splashing or spraying is possible, use a face-shield in addition to chemical protective goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin and Body Protection: Wear protective clothing to minimize skin contact. Contaminated clothing should be removed and laundered before reuse. Discard contaminated leather goods.

Hand Protection: Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Protective Material Types: Neoprene

Respiratory Protection: A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If chlorine or chlorine dioxide is present, an acid gas cartridge is also required. An approved self-contained breathing apparatus operated in the pressure demand mode or an airline respirator with escape pack is required when an air purifying respirator is not adequate or for spills / emergencies of unknown concentrations. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Solid, Flakes
Color:	White
Odor:	Chlorine
Odor Threshold:	No data available
Molecular Weight:	90.45
Molecular Formula:	NaClO ₂
Decomposition Temperature:	356 – 392 °F (180 – 200 °C)
Boiling Point/Range:	Not applicable

Freezing Point/Range:	Not applicable to solids.
Melting Point/Range:	356-392 °F (180-200 °C)
Vapor Pressure:	Not applicable
Vapor Density (air=1):	Not applicable
Density:	69 lbs/ft ³ (packed)
Water Solubility:	39% @ 25 °C
pH:	12 @ 25 °C (25% solution)
Evaporation Rate (ether=1):	Not applicable
Partition Coefficient (n-octanol/water):	No data available
Flash point:	Not applicable
Flammability (solid, gas):	Not flammable
Lower Flammability Level (air):	Not flammable
Upper Flammability Level (air):	Not flammable
Auto-ignition Temperature:	Not applicable
Viscosity:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable at normal temperatures and pressures.

Reactivity: Not reactive under normal temperatures and pressures.

Possibility of Hazardous Reactions: Avoid heat, flames, sparks and other sources of ignition. Avoid contamination with foreign materials. Avoid exposure to sunlight or ultraviolet light.

Conditions to Avoid: Avoid mechanical shock or impact, if contaminated.

Incompatibilities/Materials To Avoid: Acids, reducing agents, combustible material, oxidizing agents, hypochlorite, organic solvents and compounds, garbage, dirt, organic materials, household products, chemicals, soap products, paint products, vinegar, beverages, oils, pine oil, dirty rags, sulfur-containing rubber or any other foreign matter.

Hazardous Decomposition Products: Chlorine dioxide is formed on contact with acids. Thermal decomposition products include chlorine and oxides of sodium.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity Data: Technical Sodium chlorite (Pesticide)

<u>LD50 Oral:</u> 278 mg/kg (Rat)	<u>LD50 Dermal:</u> > 2 g/kg (Rabbit)	<u>LC50 Inhalation:</u> 0.29 mg/L (4 hr-Rat)
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Component Toxicity Data:

NOTE: The data are from public databases sources

<u>Component</u>	<u>LD50 Oral:</u>	<u>LD50 Dermal:</u>	<u>LC50 Inhalation:</u>
Sodium chlorite 7758-19-2	165 mg/kg (Rat)	107.2 mg/kg (Rabbit)	230 mg/m ³ (4 hr-Rat)

POTENTIAL HEALTH EFFECTS:

Eye contact: Causes serious eye damage. Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. May cause permanent eye damage including blindness. Significant and prolonged contact may cause damage to the internal contents of eye.

Skin contact: Contact causes skin irritation. Direct contact with wet material or by moist skin may cause severe irritation, pain, and possibly burns.

Inhalation: May be fatal if inhaled. Inhalation may cause coughing, irritation (possibly severe), redness of upper and lower airways, shortness of breath, chemical burns and possibly pulmonary edema. Pulmonary edema may develop several hours after a severe acute exposure.

Ingestion: Harmful if swallowed. Ingestion may cause irritation, nausea, and vomiting. Causes significant metabolic issues through oxidation. May induce methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

SIGNS AND SYMPTOMS OF EXPOSURE:

Depending on the degree and duration of exposure, possible signs and symptoms from contact of this material with the skin and eyes, breathing this material, and swallowing this material may include:

Inhalation (Breathing): Respiratory System Effects: Exposure to airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, bronchio-constriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

Skin: Skin Irritation. Skin exposure may cause irritation, redness, itching, swelling, burning sensation.

Eye: Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.

Ingestion (Swallowing): Ingesting this material may cause irritation, nausea, and vomiting. Oxidation may cause significant metabolic issues such as: methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

CHRONIC TOXICITY:

Sodium chlorite has produced hemolytic anemia in several animal species at concentrations of 100 mg/L or higher. In a subchronic study using rats, hematological alterations included decreased erythrocyte counts, hemoglobin levels, and hemacrit. Methemoglobin levels decreased in females, but increased in males. There is no evidence of kidney effects in humans; however, in animal studies with sodium chlorite, there is limited evidence of kidney effects.

Interaction with Other Chemicals Which Enhance Toxicity: Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes. Chlorine dioxide vapors are emitted when this product contacts acids, chlorine, or bleach.

GHS HEALTH HAZARDS:

Listed below.

ACUTE TOXICITY - ORAL: Category 3 - Toxic if swallowed.

ACUTE TOXICITY - INHALATION: Category 2 - Fatal if inhaled.

CONTACT HAZARD - EYE: Category 1 - Causes serious eye damage

CONTACT HAZARD - SKIN: Category 2 - Causes skin irritation

Skin Absorbent / Dermal Route: No

CARCINOGENICITY: Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC, or OSHA.

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure): Category 2 - Respiratory System, Blood, Kidneys

SPECIFIC TARGET ORGAN TOXICITY (Repeated or Prolonged Exposure): Category 2 - Blood, Kidneys

MUTAGENIC DATA: Not classified as a mutagen per GHS criteria. Sodium chlorite has tested positive in some studies. The significance of these test results for human health is unclear because the oxidizing effects of the chlorite or salting effects of sodium may significantly affect the ability of the tests to accurately detect mutagens.

REPRODUCTIVE TOXICITY: Not classified as a reproductive toxin per GHS criteria. There is limited evidence of male reproductive effects in animal studies.

DEVELOPMENTAL TOXICITY: Not classified as a developmental or reproductive toxin per GHS criteria. Observations in animal studies include decreased serum levels of thyroid hormones in offspring.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity Data

Aquatic Toxicity: LC50 rainbow trout = 290 mg/L as 80% NaClO₂ (96 hour); LC50 bluegill = 265-310 mg/L as 80% NaClO₂ (96 hour); LC Sheepshead minnow = 62-90 ppm (96 hour)

Invertebrate Toxicity: LC50 Daphnia Magna = 0.29 mg/L as 80% NaClO₂ (48 hour)

Other Toxicity: LD50 Mallard duck = 0.49-1.00 g/kg as 80% NaClO₂ (gavage); LD50 Bob White quail = 0.66 g/kg as 80% NaClO₂ (gavage); Sodium chlorite in the diet of birds was not acutely toxic. Eight-day dietary LC50's in the Mallard duck and Bob White quail were >10,000 ppm

Fate and Transport

Biodegradation: Chlorite ions were reduced by some bacteria under anaerobic conditions.

Persistence: This material will eventually degrade to sodium chloride.

Bioconcentration: This material will not bioaccumulate.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste from material: Dispose in accordance with all applicable regulations. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction and fire. Keep out of water supplies and sewers. May be subject to disposal regulations.

Container Management: Container management: Containers are non-refillable. Do not reuse or refill containers. Offer for recycling if available. Offer for reconditioning if appropriate. Triple rinse container promptly after emptying. Container rinsate must be disposed of in compliance with applicable regulations.

SECTION 14: TRANSPORT INFORMATION

US DOT 49 CFR 172.101

Proper Shipping Name: Sodium chlorite
UN Number: UN1496
Hazard Class/Division: 5.1
Packaging Group: II
Labeling Requirements: 5.1

Canadian Transportation of Dangerous Goods

Shipping Name: Sodium chlorite
UN Number: UN1496
Class or Division: 5.1
Packing/Risk Group: II
Labeling Requirements: 5.1

ICAO

Proper Shipping Name: Sodium chlorite
UN Number: UN1496
Hazard Class: 5.1
Packaging Group: II
Subsidiary Risk: No Information Available

IATA

Proper Shipping Name: Sodium chlorite
UN Number: UN1496
Hazard Class: 5.1
Packaging Group: II
Subsidiary Risk: No Information Available
ERG Code: 5L

SECTION 15: REGULATORY INFORMATION

US Regulations

OSHA REGULATORY STATUS:

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

If a release is reportable under CERCLA section 103, notify the state emergency response commission and local emergency planning committee. In addition, notify the National Response Center at (800) 424-8802 or (202) 426-2675.

SARA EHS Chemical (40 CFR 355.30)

Not regulated

EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):

Acute Health Hazard, Chronic Health Hazard, Fire Hazard

SARA HAZARD CATEGORIES ALIGNED WITH GHS (2018):

Physical Hazard - Oxidizer
Health Hazard - Acute Toxin
Health Hazard - Skin Corrosive / Irritant
Health Hazard - Eye Corrosive / Irritant
Health Hazard - Specific Target Organ Toxicity (STOT) Single Exposure (SE)
Health Hazard - Specific Target Organ Toxicity (STOT) Repeat Exposure (RE)

EPCRA SECTION 313 (40 CFR 372.65):

Not regulated.

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):

Not regulated

FIFRA REGULATIONS: Registered pesticide under 40 CFR 152.10, Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), EPA Reg. No. 90094-1 (Technical Sodium Chlorite)

FIFRA LABELING REQUIREMENTS: - This chemical is a pesticide product registered by the United States Environmental Protection Agency (EPA) and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide

chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

- FIFRA Signal Word - DANGER
- Corrosive
- Causes irreversible eye damage and skin burns
- May be fatal if swallowed
- Irritating to nose and throat
- This product is toxic to fish and aquatic organisms
- Danger: strong oxidizing agent
- Mix only into water
- Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion
- Do not contaminate with moisture, garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar

FDA: This material has Generally Recognized As Safe (GRAS) status under specific U.S. Food and Drug Administration (FDA) regulations. Additional information is available from the Code of Federal Regulations which is accessible on the FDA’s website. Only food grade product is guaranteed to be produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the FDA. Food grade product is produced in a facility that is accredited as a Safe Quality Food (SQF) Level 2 Facility, certified under the Global Food Safety Initiative (GFSI), and meets the Food Chemical Codex (FCC) requirements.

National Inventory Status

Component	TSCA Inventory	TSCA 12(b)	TSCA Section 4	TSCA Section 5	TSCA Section 6	TSCA Section 8	TSCA 8(a) PAIR	TSCA 8(d) IUR	TSCA 8(a) CAIR
7758-19-2	Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
7647-14-5	Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
7732-18-5	Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA): All components are listed or exempt.

TSCA 12(b): This product is not subject to export notification.

Canadian Chemical Inventory: All components of this product are listed on either the DSL or the NDSL.

Component	DSL	NDSL
Sodium chlorite 7758-19-2	Listed	Not Listed
Sodium chloride 7647-14-5	Listed	Not Listed

State Regulations

California Proposition 65:

This product and its ingredients are not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act. For additional information, contact OxyChem Technical Services at 1-800-733-1165.

Component	California Proposition 65 Cancer WARNING:	California Proposition 65 CRT List – Male reproductive toxin:	California Proposition 65 CRT List – Female reproductive toxin:	Massachusetts Right to Know Hazardous Substance List	New Jersey Right to Know Hazardous Substance List	New Jersey Special Health Hazards Substance List
Sodium chlorite 7758-19-2	Not Listed	Not Listed	Not Listed	Listed	1689	Corrosive; reactive – second degree
Sodium chloride 7647-14-5	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Component	New Jersey – Environmental Hazardous Substance List	Pennsylvania Right to Know Hazardous Substance List	Pennsylvania Right to Know Special Hazardous Substances	Pennsylvania Right to Know Environmental Hazard List	Rhode Island Right to Know Hazardous Substance List
Sodium chlorite 7758-19-2	Not Listed	Listed	Not Listed	Not Listed	Not Listed
Sodium chloride 7647-14-5	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

CANADIAN REGULATIONS

• This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations

Component	Canada – CEPA – Schedule I – List of Toxic Substances	Canada - NPRI	Canada – CEPA – 2010 Greenhouse Gases (GHG) Subject To Mandatory Reporting	Canadian Chemical Inventory:	NDSL:
Sodium chlorite 7758-19-2	Not Listed	Not Listed	Not Listed	Listed	Not Listed
Sodium chloride 7647-14-5	Not Listed	Not Listed	Not Listed	Listed	Not Listed

WHMIS - Classifications of Substances:

- C - Oxidizing Material
- D1A - Poisonous and Infectious Material; Materials causing immediate and serious toxic effects - Very toxic material
- D1B - Poisonous and Infectious Material; Materials causing immediate and serious toxic effects - Toxic material
- D2B - Poisonous and Infectious Material; Materials causing other toxic effects - Toxic material
- E - Corrosive material

SECTION 16: OTHER INFORMATION

Revision Number: 4

Section(s) Revised In this Version:

- Emergency Contact and # Changed

Prepared By: DRS Laboratories, Inc.

The information in this Safety Data Sheet should be provided to all who use, handle, transport, or otherwise are exposed to this product. This information has been prepared for the guidance of plant engineering, operations, management and persons working with or handling this product. The information presented in this SDS is premised upon proper handling and anticipated uses, and is for the material without chemical additions/alterations. Additionally, if this Safety Data Sheet is more than three years old, please contact this supplier at the phone number in Section 1 to make sure this sheet is current.

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, DRS Laboratories, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet